

# *Proposal to address Physical Activity*

## ASSESSMENT

### Definition of the Public Health Problem/Issue

There is no doubt that Americans are not physically active enough. Only 45% of adults get the recommended 30 minutes of physical activity on five or more days per week, and adolescents are similarly inactive. Regular physical activity improves aerobic capacity, muscular strength, body agility and coordination, and metabolic functioning. Those who are physically active have a reduced risk of cardiovascular disease, ischemic stroke, type 2 (non-insulin-dependent) diabetes, colon cancers, osteoporosis, depression, and fall-related injuries. If this issue is not solved, obesity rates will continue to increase drastically and the United States will be involved in a true health crisis.

Currently, the CDC and World Health Organization both gather information and are involved with addressing the issue of physical activity in the United States. Some non-profit organizations include the American Association for Physical Activity and Recreation, American Alliance for Health, Physical Activity, and Recreation and Dance, National Coalition for Promoting Physical Activity, and National Association for Health and Fitness.

### Description of Successful Programs/ Interventions

Informational approaches focus on increasing physical activity by providing information to motivate and enable people to change their behavior and to maintain that change over time. The interventions primarily use educational approaches to present both specific information about physical activity and exercise and general information (e.g., ways to reduce the risk of cardiovascular disease). The information is intended to change people's knowledge about the benefits of physical activity, increase their awareness of opportunities for increasing physical activity, explain methods for overcoming barriers and negative attitudes about physical activity, and ultimately increase physical activity.

Community-wide campaigns involve many community sectors in highly visible, broad-based, multi-component approaches to increasing physical activity. In addition to considering sedentary behavior, most of the campaigns reviewed also addressed other cardiovascular disease risk factors, particularly diet and smoking. These campaigns are effective in increasing the level of physical activity and the fitness of both adults and children. They also increase knowledge about exercise and physical activity, as well as intentions to be more physically active.

Effectiveness:

- Community-wide campaigns are effective in increasing the percentage of active people by approximately 4%.

- These campaigns are also effective in increasing energy expenditure by approximately 16%.

Applicability:

- The findings of this review should be applicable to most communities in the United States if the campaign is adapted to the target population.

Point-of-decision prompts are signs placed by elevators and escalators to motivate people to use nearby stairs for health benefits or weight loss. These signs appear to motivate both people who want to be more active and those interested in the general health benefits of using the stairs. All interventions evaluated were single component, in which placement of signs was the only activity.

Effectiveness:

- Point-of-decision prompts are effective in increasing the percentage of people taking the stairs (rather than escalators or elevators) by approximately 54%.
- These prompts are also effective in increasing levels of physical activity.
- Prompts are more effective among obese than non-obese people, especially when signs link use of stairs to weight loss rather than general health benefits.

Applicability:

- These findings should be generally applicable in diverse populations and settings, provided that the intervention is adapted to the target population.

## **Identified barriers to program success**

Mass media campaigns have insufficient evidence to determine effectiveness. These single-component campaigns are designed to increase knowledge about physical activity, influence attitudes and beliefs, and change behavior by transmitting messages through newspapers, radio, television, and billboards, singly or in combination. Paid advertisements, donated time and space for promotions, and news or lifestyle features are used. Unlike the community-wide campaigns discussed above, these interventions do not include other components such as support groups, risk factor screening and education, or community events. The findings of our systematic review are based on three studies that measured the effectiveness of mass media campaigns in changing (1) the percentage of people achieving a specified level of activity (i.e., walking, moderate- or vigorous-intensity physical activity, aerobic or non-aerobic activity), (2) the percentage of people categorized as sedentary, and (3) energy expenditure. Some—but not all—measures suggested a modest trend toward increasing physical activity, especially among people who were less physically active at the start of the programs. Because of the small number of available studies and limitations in their design and execution, the evidence was insufficient to determine the effectiveness of mass media campaigns, when used alone, in increasing physical activity or improving fitness.

Classroom-based health education focused on providing information has insufficient evidence to determine effectiveness. These programs consist of health education classes in elementary, middle, or high schools whose goal is to help students

develop the skills they need to make rational decisions about adopting healthier behaviors. Class content is usually multicomponent, with teachers educating students about aspects of physical inactivity, nutrition, smoking, and alcohol and drug misuse. Behavioral skills components (e.g., role-play, goal-setting, contingency planning) can also be part of the classes. Spending additional time in physical activity is not usually part of the curriculum.

## **PROGRAM PROPOSAL**

### **Specific Problem to be Addressed**

The specific problems I am addressing are the lack of education in school as well as lack of places for physical activity in the community for adolescents.

### **Target Population**

Since over half of adults in the United States don't get the recommended 30 minutes of physical activity on 5 days or more per week, I have decided to target adolescents because they are soon to be adults and will be living the adult lifestyle shortly. By bringing awareness and education to them, the results will be greatly impacted.

### **Proposed Interventions**

#### **Intervention #1 - educational**

School-based education:

These programs modify school-based physical education (PE) classes by increasing the amount of time students spend in PE class, the amount of time they are active during PE classes or the amount of moderate or vigorous physical activity (MVPA) they engage in during PE classes. Most studies reviewed increased the amount of physical activity during already-scheduled PE classes by changing the activities taught (e.g., substituting soccer for softball) or modifying the rules of the game so that students are more active (e.g., the entire team runs the bases together if the batter makes a base hit). Health education was often part of the program as well.

#### **Intervention #2 - environmental**

Creation of/enhanced access to places for physical activity combined with informational outreach activities:

These multicomponent interventions involve the efforts of businesses, coalitions, agencies, and communities to create or provide access to places where people can be physically active. Creating walking trails or providing access to fitness equipment in nearby fitness or community centers can increase the opportunities for people to be more active. In addition to promoting access, many of the studies in our review included training people to use weights and aerobic fitness equipment; teaching about healthy

behaviors; creating health and fitness programs and support or buddy systems; and providing seminars, counseling, risk screening, health forums and workshops, and referrals to physicians or additional services.

### **Healthy People Objectives**

Increase the proportion of adolescents (students in grades 9–12) who engage in moderate physical activity for more than 30 minutes on 5 of the previous 7 days.

Baseline: 27% (1999)

Healthy People 2010: 35%

Increase the proportion of adolescents (students in grades 9–12) engaged in vigorous physical activity 3 days per week for more than 20 minutes per occasion.

Baseline: 65% (1999)

Healthy People: 85%

Increase the proportion of adolescents (students in grades 9–12) who participate in daily school physical education.

Baseline: 29% (1999)

Healthy People 2010: 50%

Increase the proportion of adolescents (students in grades 9–12) who view television less than 2 hours on a school day.

Baseline: 57% (1999)

Healthy People 2010: 75%

Increase the proportion of trips to school of 1 mile made by children and adolescents walking.

Baseline: 31% (1995)

Healthy People 2010: 50%

Increase the proportion of trips to school of 2 miles made by bicycle by children and adolescents.

Baseline: 2.4% (1995)

Healthy People 2010: 5%

### **Data Collection Plan**

The following link shows the CDC Youth Risk Behavior Surveillance System for those physically active at least 60 minutes per day on less than 5 days.

<http://apps.nccd.cdc.gov/youthonline/App/Results>

Findings: 50.5% of all youth, both male and female, in the United States are physically active at least 60 minutes per day on less than 5 days. The top 3 states with the highest

percentage of youth who are physically active at least 60 minutes per day on less than 5 days are Hawaii with 62.1%, Louisiana with 62.1%, and Kentucky with 60.7%.

## **SUMMARY**

### **Major Assessment Findings**

It was found that 50.5% of all youth, both male and female, in the United States are physically active at least 60 minutes per day on less than 5 days. Only 29% of adolescents participate in daily school physical education.

### **Two Proposed Interventions**

One intervention is to provide education on physical activity and the effects in school. The other intervention is to provide places for physical activity to take place in the community. Both of these interventions are targeted towards adolescents because it is known that adults suffer from obesity the most in the United States and adolescents are soon to be adults and don't need to be living that lifestyle.